
乐达凯

Client:

LumCAT: LCD-RD-DP-12-CCT-120-WT

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.100

Lamp flux(lm): 899.6

Power (W): 11.720

Number of Lamps: 1

PF: 0.980

Length(mm): -70

Width(mm): -70

Phm Type: C

Height(mm): 40

Photometric Results

Lumens(lm): 899.59, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 76.76

Central intensity(cd): 184.059, Maximum intensity(cd): 228.013

Angle of maximum intensity: C=0.0 γ =30.0

Beam Angle(50%Imax): [C0/180]Total=126.2

[C90/270]Total=129.6

Field angle(10%Imax): [C0/180]Total=180.2

[C90/270]Total=179.4

Maximum s/h(1/2): C0_180=1.75 C90_270=1.76

Maximum s/h(1/4): C0_180=1.74 C90_270=1.76

Up flux rate of lamp(%): 7.18%

Down flux rate of lamp(%): 92.82%

Up flux rate of LUM(%): 7.18%

Down flux rate of LUM(%): 92.82%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 69.410%

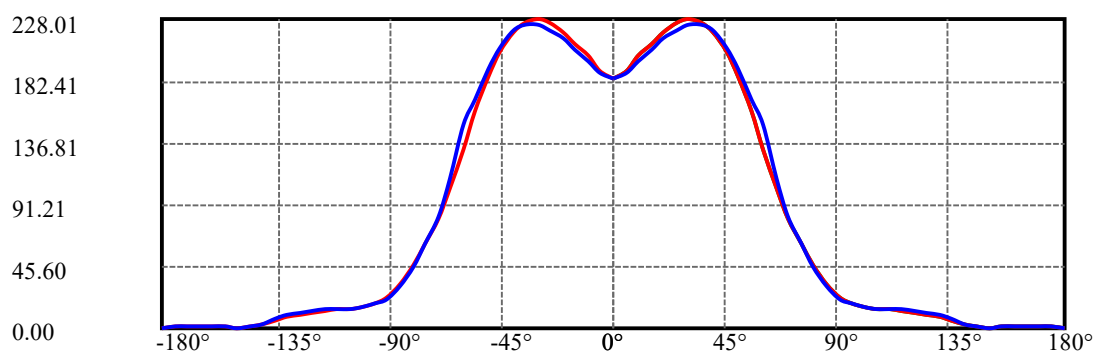
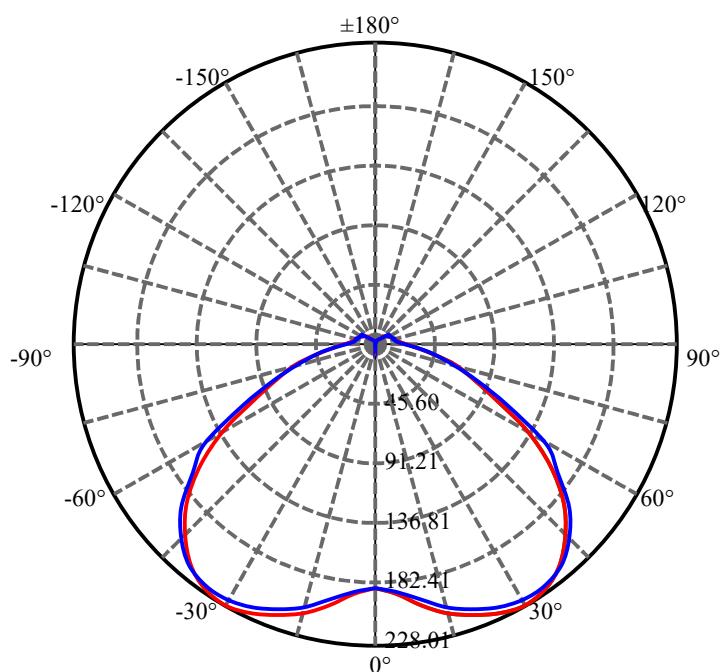
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	184.059	0.000	0	0.00%	0.00%
5.0	188.303	4.451	4.451	0.49%	0.49%
10.0	197.059	13.786	18.237	1.53%	2.03%
15.0	206.051	23.912	42.149	2.66%	4.69%
20.0	214.506	34.660	76.809	3.85%	8.54%
25.0	219.719	45.542	122.351	5.06%	13.60%
30.0	223.275	56.061	178.412	6.23%	19.83%
35.0	223.518	65.793	244.206	7.31%	27.15%
40.0	217.969	73.659	317.864	8.19%	35.33%
45.0	205.930	78.488	396.353	8.72%	44.06%
50.0	189.488	79.900	476.253	8.88%	52.94%
55.0	166.832	77.476	553.729	8.61%	61.55%
60.0	138.922	70.674	624.403	7.86%	69.41%
65.0	108.416	60.128	684.531	6.68%	76.09%
70.0	81.921	48.195	732.726	5.36%	81.45%
75.0	61.958	37.608	770.333	4.18%	85.63%
80.0	45.977	28.880	799.214	3.21%	88.84%
85.0	31.577	21.073	820.287	2.34%	91.18%
90.0	22.273	14.745	835.032	1.64%	92.82%
95.0	17.796	10.971	846.003	1.22%	94.04%
100.0	15.594	9.073	855.076	1.01%	95.05%
105.0	14.323	8.005	863.081	0.89%	95.94%
110.0	13.705	7.326	870.406	0.81%	96.76%
115.0	13.282	6.833	877.24	0.76%	97.52%
120.0	12.355	6.232	883.472	0.69%	98.21%
125.0	11.122	5.426	888.898	0.60%	98.81%
130.0	9.152	4.408	893.306	0.49%	99.30%
135.0	6.064	3.075	896.381	0.34%	99.64%
140.0	2.974	1.673	898.054	0.19%	99.83%
145.0	0.927	0.651	898.705	0.07%	99.90%
150.0	0.463	0.205	898.91	0.02%	99.92%
155.0	0.811	0.161	899.071	0.02%	99.94%
160.0	0.888	0.178	899.249	0.02%	99.96%
165.0	0.927	0.150	899.399	0.02%	99.98%
170.0	0.927	0.110	899.509	0.01%	99.99%
175.0	0.927	0.066	899.575	0.01%	100.00%
180.0	0.463	0.017	899.592	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	178.41	19.83%	19.83%
0-40	317.86	35.33%	35.33%
0-60	624.40	69.41%	69.41%
0-90	835.03	92.82%	92.82%
0-120	883.47	98.21%	98.21%
0-180	899.59	100.00%	100.00%
60-90	210.63	23.41%	23.41%
90-120	48.44	5.38%	5.38%
90-130	58.27	6.48%	6.48%
90-150	63.88	7.10%	7.10%
90-180	64.54	7.17%	7.17%
0-68.65	719.67	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	18.24
10-20	58.57
20-30	101.60
30-40	139.45
40-50	158.39
50-60	148.15
60-70	108.32
70-80	66.49
80-90	35.82
90-100	20.04
100-110	15.33
110-120	13.07
120-130	9.83
130-140	4.75
140-150	0.86
150-160	0.34
160-170	0.26
170-180	0.07



C0(Max):

C0/C180:

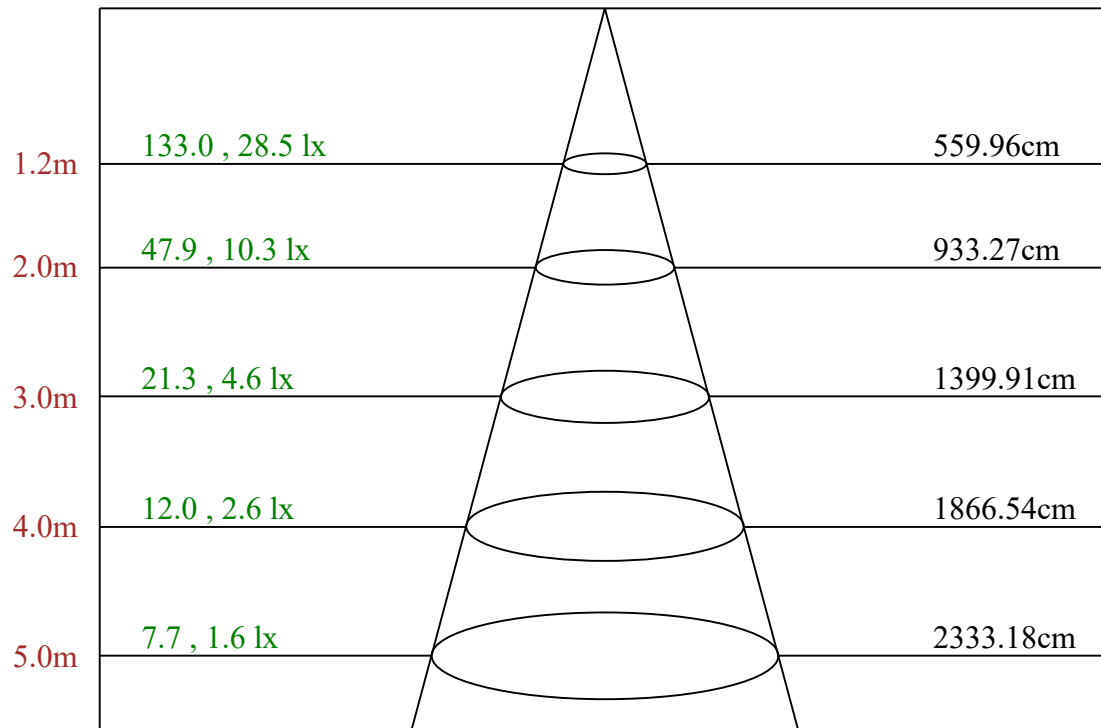
C90/C270:

Field angle(10%Imax):C0/180Left:120.1 Right:60.1

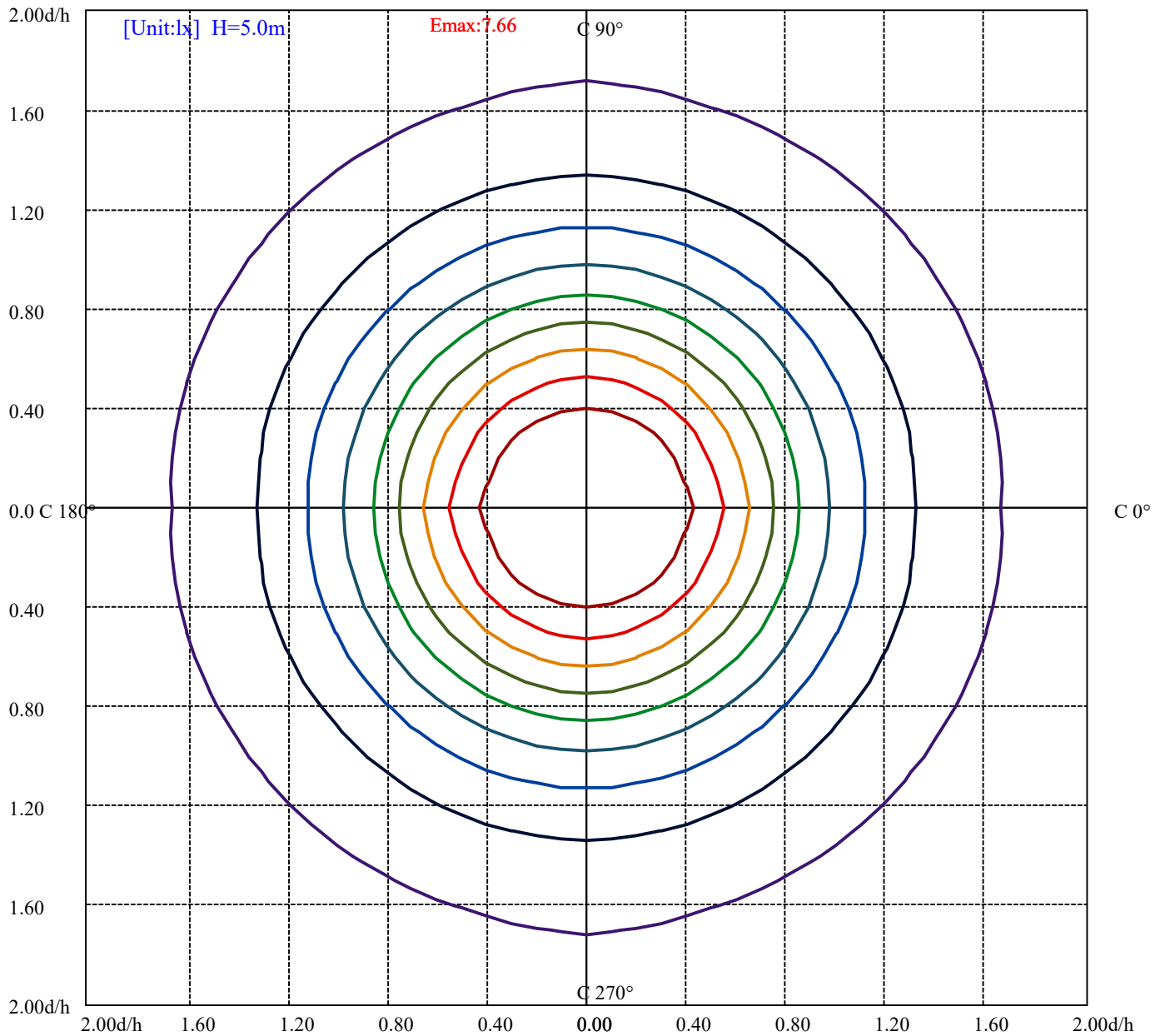
:C90/270Left:124.7 Right:54.7

Beam Angle(50%Imax):C0/180Left:93.1 Right:33.1

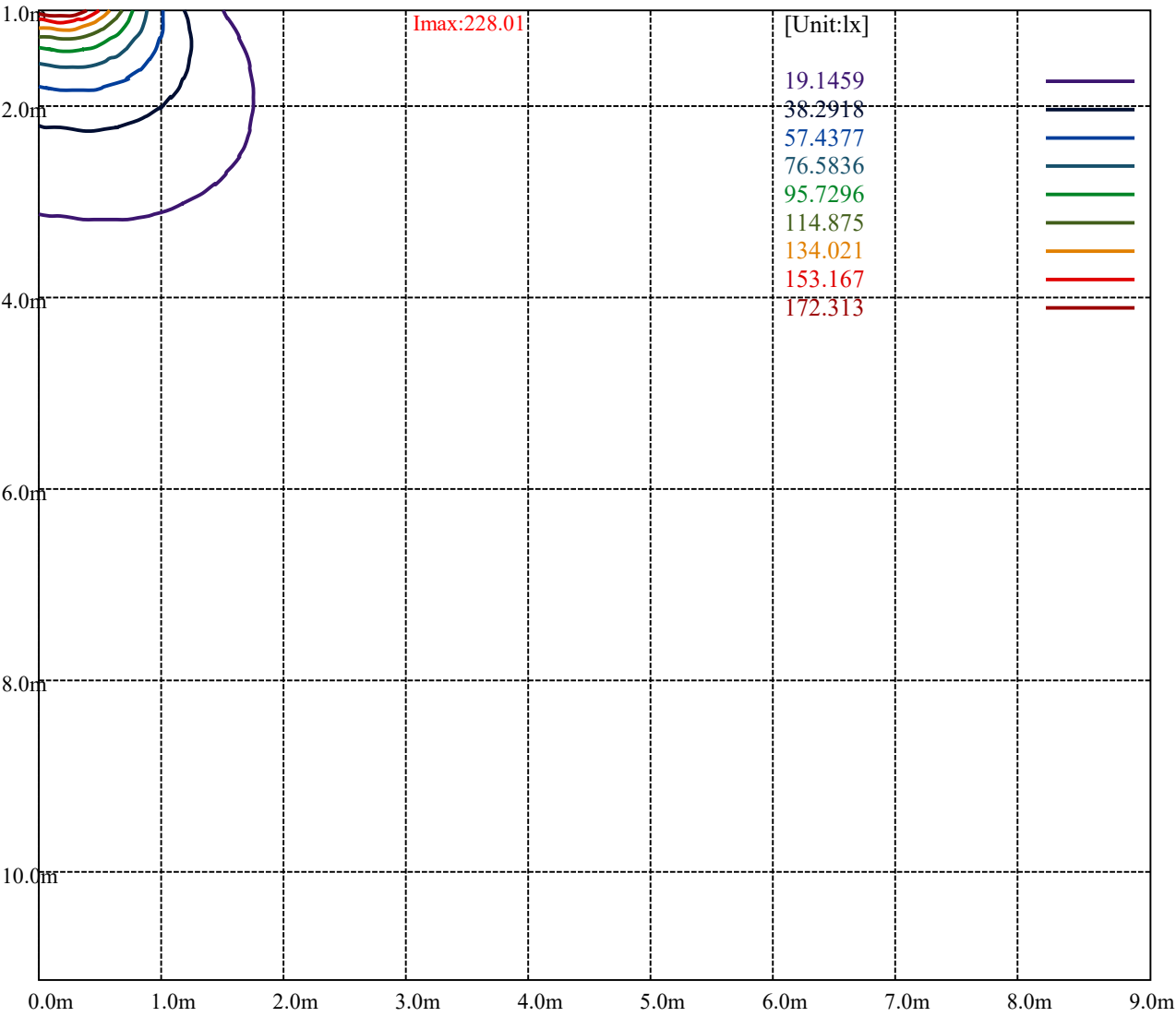
:C90/270Left:99.8 Right:29.8



Max , Ave Beam angle of C0 plane 133.60



(10%Emax) 0.765836	—
(20%Emax) 1.531672	—
(30%Emax) 2.297508	—
(40%Emax) 3.063344	—
(50%Emax) 3.82918	—
(60%Emax) 4.595	—
(70%Emax) 5.36084	—
(80%Emax) 6.12668	—
(90%Emax) 6.89252	—



Luminance Table

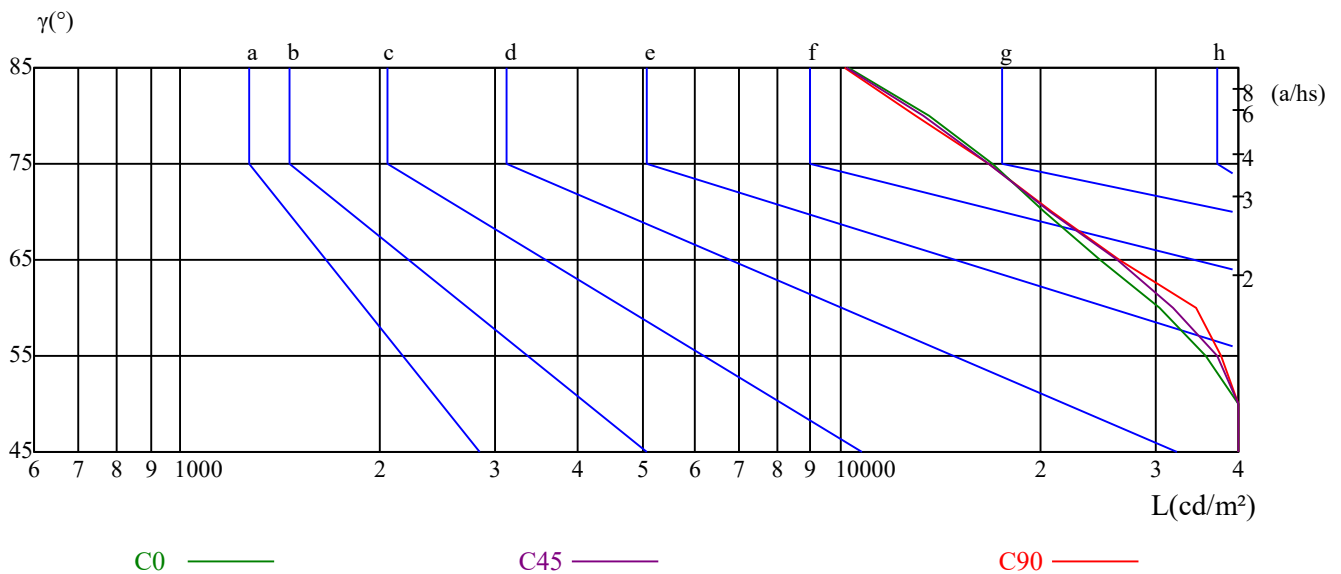
γ	45	50	55	60	65	70	75	80	85
C0	43340	40049	35705	30320	24740	20298	16950	13633	10257
C45	43959	41070	37134	31909	26236	20726	16768	13298	10189
C90	44095	41361	37588	34413	26454	20841	16705	13025	10115

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
63340	67729	67170	62975	62063	62300	95554	94230	94925

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve



RHOC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.17	1.17	1.17	1.14	1.14	1.14	1.07	1.07	1.07	1.01	1.01	1.01	0.95	0.95	0.95	0.93
1	1.01	0.96	0.92	0.98	0.93	0.89	0.92	0.88	0.85	0.87	0.84	0.81	0.82	0.80	0.78	0.75
2	0.87	0.79	0.73	0.84	0.77	0.72	0.79	0.74	0.69	0.75	0.70	0.66	0.71	0.67	0.64	0.61
3	0.75	0.67	0.60	0.73	0.65	0.59	0.69	0.62	0.57	0.65	0.60	0.55	0.62	0.57	0.53	0.51
4	0.66	0.57	0.50	0.64	0.56	0.49	0.61	0.54	0.48	0.58	0.51	0.46	0.55	0.49	0.45	0.42
5	0.59	0.49	0.42	0.57	0.48	0.42	0.54	0.46	0.41	0.51	0.45	0.40	0.49	0.43	0.38	0.36
6	0.52	0.43	0.36	0.51	0.42	0.36	0.48	0.41	0.35	0.46	0.39	0.34	0.44	0.38	0.33	0.31
7	0.47	0.38	0.32	0.46	0.37	0.31	0.44	0.36	0.31	0.42	0.35	0.30	0.40	0.34	0.29	0.27
8	0.43	0.34	0.28	0.42	0.33	0.28	0.40	0.32	0.27	0.38	0.31	0.26	0.36	0.30	0.26	0.24
9	0.39	0.30	0.25	0.38	0.30	0.25	0.36	0.29	0.24	0.35	0.28	0.23	0.33	0.27	0.23	0.21
10	0.36	0.28	0.22	0.35	0.27	0.22	0.33	0.26	0.22	0.32	0.26	0.21	0.31	0.25	0.21	0.19

乐达凯 LCD-RD-DP-12-CCT-120-WT

Intensity data(cd)										Appendix Page: 10 Total:12	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	184.06	184.06	190.47	195.96	197.79	198.71	197.79	194.13	191.38		
15.0	184.06	184.06	189.55	196.88	200.54	200.54	200.54	197.79	192.30		
30.0	184.06	184.06	191.42	198.78	204.31	206.15	205.23	204.31	200.62		
45.0	184.06	182.22	191.42	199.70	207.99	211.67	212.59	213.51	210.75		
60.0	184.06	184.06	193.35	203.58	213.81	219.38	224.03	227.75	224.03		
75.0	184.06	184.06	194.28	205.44	217.52	227.75	234.26	239.83	238.90		
90.0	184.06	184.06	194.28	207.30	221.24	234.26	244.48	250.06	250.99		
105.0	184.06	184.06	194.28	208.23	224.03	237.98	250.06	257.50	258.43		
120.0	184.06	184.06	194.28	208.23	224.96	240.76	253.78	262.14	263.07		
135.0	184.06	185.94	196.27	211.29	227.26	244.16	257.31	266.70	267.64		
150.0	184.06	184.06	194.28	209.16	237.98	240.76	254.71	264.93	264.93		
165.0	184.06	184.06	194.28	208.23	224.03	238.90	251.92	261.22	261.22		
180.0	184.06	195.05	210.61	224.35	239.00	250.91	258.23	257.32	244.50		
195.0	184.06	195.05	207.87	220.69	233.51	243.58	250.91	248.16	235.34		
210.0	184.06	194.18	207.07	218.11	228.23	235.60	241.12	238.36	228.23		
225.0	184.06	193.26	204.31	214.43	220.87	226.39	228.23	226.39	215.35		
240.0	184.06	194.28	203.58	211.02	216.59	220.31	219.38	215.67	204.51		
255.0	184.06	193.35	200.79	207.30	211.02	211.02	208.23	202.65	193.35		
270.0	184.06	191.50	198.93	203.58	205.44	203.58	201.72	197.07	186.85		
285.0	184.06	190.57	197.07	200.79	200.79	199.86	196.14	190.57	188.71		
300.0	184.06	190.57	195.21	198.93	198.93	196.14	192.43	186.85	177.55		
315.0	184.06	192.51	196.27	199.08	199.08	196.27	193.45	188.75	178.42		
330.0	184.06	189.64	194.28	197.07	196.14	194.28	190.57	185.92	176.62		
345.0	184.06	190.57	195.21	197.07	197.07	194.28	191.50	186.85	177.55		
360.0	184.06	184.06	190.47	195.96	197.79	198.71	197.79	194.13	191.38		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	181.31	169.41	155.67	138.27	117.21	95.23	76.92	58.61	42.12		
15.0	183.14	172.15	157.50	139.19	117.21	95.23	75.09	56.77	41.21		
30.0	190.50	178.54	163.81	141.73	118.72	94.79	72.70	55.22	39.57		
45.0	200.62	187.74	170.25	148.17	121.48	92.03	71.78	53.38	38.65		
60.0	214.74	201.72	184.06	156.17	123.64	92.96	69.72	52.06	36.25		
75.0	230.54	214.74	193.35	161.75	125.49	92.96	68.79	51.13	35.32		
90.0	240.76	224.03	200.79	166.40	127.35	91.10	67.86	49.27	35.32		
105.0	248.20	230.54	204.51	166.40	126.42	91.10	66.00	49.27	34.39		
120.0	251.92	234.26	206.37	169.19	126.42	89.24	66.00	48.34	33.47		
135.0	256.37	236.65	209.41	169.97	127.71	89.21	66.67	49.77	34.75		
150.0	253.78	234.26	209.16	169.19	129.21	90.17	66.00	49.27	34.39		
165.0	250.06	233.33	207.30	170.12	129.21	92.96	66.00	50.20	35.32		
180.0	226.18	200.54	165.74	125.45	88.82	65.02	48.53	34.80	21.98		
195.0	219.77	197.79	162.08	124.54	90.66	65.93	48.53	34.80	21.98		
210.0	211.67	190.50	160.13	124.24	92.03	68.10	49.70	34.97	23.01		
225.0	201.54	181.30	154.61	122.40	92.95	69.94	51.54	36.81	24.85		
240.0	190.57	172.90	147.81	119.92	94.82	71.58	54.85	39.04	26.03		
255.0	180.34	164.54	141.30	117.13	92.96	72.51	55.78	52.06	26.96		
270.0	173.83	158.03	137.58	132.93	92.96	73.44	55.78	39.97	27.89		
285.0	169.19	153.38	135.72	113.41	92.96	73.44	57.63	40.90	28.82		
300.0	167.33	153.38	134.79	113.41	92.96	74.37	57.63	41.83	28.82		
315.0	168.09	153.07	134.29	114.57	94.85	76.07	58.22	42.26	29.11		
330.0	165.47	152.45	133.86	114.34	92.96	74.37	58.56	41.83	28.82		
345.0	166.40	152.45	133.86	115.27	92.96	74.37	56.71	40.90	28.82		
360.0	181.31	169.41	155.67	138.27	117.21	95.23	76.92	58.61	42.12		

乐达凯 LCD-RD-DP-12-CCT-120-WT

Intensity data(cd)										Appendix Page: 11 Total:12	
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0		
0.0	29.30	21.98	18.31	15.57	14.65	13.74	12.82	11.90	10.99		
15.0	28.39	21.06	18.31	15.57	14.65	13.74	12.82	11.90	10.07		
30.0	27.61	20.25	17.49	14.72	13.80	13.80	12.88	11.96	10.12		
45.0	25.77	18.41	16.57	14.72	13.80	13.80	12.88	11.96	11.04		
60.0	25.10	18.59	15.80	14.87	13.94	13.94	13.01	12.08	11.16		
75.0	24.17	18.59	15.80	14.87	13.94	13.94	13.01	12.08	11.16		
90.0	23.24	17.66	14.87	13.94	13.94	13.94	13.01	12.08	11.16		
105.0	22.31	16.73	14.87	13.94	13.01	13.94	13.01	12.08	11.16		
120.0	22.31	16.73	14.87	13.94	13.01	13.94	13.01	12.08	10.23		
135.0	22.54	16.90	15.03	14.09	13.15	14.09	13.15	12.21	10.33		
150.0	22.31	16.73	14.87	13.94	13.01	13.94	13.01	12.08	10.23		
165.0	23.24	16.73	14.87	13.94	13.01	13.01	12.08	12.08	10.23		
180.0	16.48	14.65	13.74	12.82	12.82	11.90	10.99	9.16	5.49		
195.0	16.48	14.65	13.74	12.82	12.82	11.90	10.99	8.24	6.41		
210.0	17.49	15.65	14.72	12.88	12.88	11.96	11.04	8.28	5.52		
225.0	18.41	15.65	14.72	13.80	12.88	11.96	11.96	9.20	7.36		
240.0	18.59	16.73	15.80	13.94	13.94	13.01	12.08	10.23	8.37		
255.0	20.45	17.66	14.87	13.94	13.94	13.01	12.08	10.23	8.37		
270.0	20.45	18.59	15.80	14.87	13.94	13.01	12.08	11.16	8.37		
285.0	21.38	18.59	15.80	14.87	13.94	13.01	12.08	11.16	8.37		
300.0	21.38	18.59	15.80	14.87	13.94	13.01	12.08	11.16	8.37		
315.0	22.54	18.78	15.96	15.03	14.09	13.15	12.21	11.27	8.45		
330.0	22.31	18.59	15.80	14.87	14.87	13.01	12.08	11.16	8.37		
345.0	22.31	18.59	15.80	14.87	14.87	13.94	12.08	11.16	8.37		
360.0	29.30	21.98	18.31	15.57	14.65	13.74	12.82	11.90	10.99		
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	7.33	4.58	1.83	0.92	1.83	0.92	0.92	0.92	0.92		
15.0	7.33	2.75	1.83	0.92	1.83	0.92	0.92	0.92	0.92		
30.0	7.36	3.68	1.84	0.92	1.84	0.92	0.92	0.92	0.92		
45.0	8.28	4.60	1.84	0.92	0.92	0.92	0.92	0.92	0.92		
60.0	8.37	4.65	1.86	0.93	1.86	0.93	0.93	0.93	0.93		
75.0	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
90.0	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
105.0	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
120.0	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
135.0	8.45	4.70	1.88	0.94	0.94	0.94	0.94	0.94	0.94		
150.0	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
165.0	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
180.0	3.66	1.83	0.00	0.00	0.00	0.92	0.92	0.92	0.92		
195.0	2.75	0.92	0.00	0.00	0.00	0.00	0.92	0.92	0.92		
210.0	2.76	1.84	0.00	0.00	0.00	0.92	0.92	0.92	0.92		
225.0	4.60	1.84	0.00	0.00	0.00	0.92	0.92	0.92	0.92		
240.0	2.79	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.93		
255.0	3.72	0.93	0.00	0.00	0.00	0.93	0.93	0.93	0.93		
270.0	4.65	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93		
285.0	4.65	1.86	0.00	0.00	0.00	0.93	0.93	0.93	0.93		
300.0	4.65	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93		
315.0	4.70	1.88	0.00	0.00	0.94	0.94	0.94	0.94	0.94		
330.0	4.65	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93		
345.0	4.65	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93		
360.0	7.33	4.58	1.83	0.92	1.83	0.92	0.92	0.92	0.92		

Intensity data(cd)

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C/γ(°)	180.0
0.0	0.92
15.0	0.92
30.0	0.92
45.0	0.92
60.0	0.93
75.0	0.93
90.0	0.93
105.0	0.93
120.0	0.93
135.0	0.94
150.0	0.93
165.0	0.93
180.0	0.00
195.0	0.00
210.0	0.00
225.0	0.00
240.0	0.00
255.0	0.00
270.0	0.00
285.0	0.00
300.0	0.00
315.0	0.00
330.0	0.00
345.0	0.00
360.0	0.92